

ABSTRACT: A bromine/nitro moiety linked into the backbone of an ester or other compound over a wide range of occurrence rates provides antimicrobial, bio-resistant and fungal resistant properties for metal working fluids (MWF)s and other coatings.

5 The moiety can be have the bromo and nitro groups linked to the same or different carbon atoms. The present invention also relates to urethanes, urea, amides, imides, carbonates, ethers, siloxanes, and many other types of linkages essential to MWF bases.